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Invasive Plants Fact Sheet

Purple Loosestrife Lythrum salicaria L. Loosestrife Family (Lythraceae)

Status: Common and invasive in Connecticut

Description: Purple loosestrife is a non-native herbaceous perennial with a stiff, four-sided stem and showy spikes of numerous magenta flowers. Individual flowers have five to seven petals, and are attached close to the stem. This attractive plant is usually under four feet in height, but can grow to 10 feet in nutrient-rich habitats. Mature plants can have from 30 to 50 stems rising from a common rootstock, forming a large bushy cluster. Preferred habitat: Purple loosestrife can be found in a variety of wetland habitats including freshwater tidal and non-tidal marshes, river banks, ditches, wet meadows, and edges of ponds and reservoirs. It prefers moist, highly organic soils in open areas, but can tolerate a wide range of substrate material, flooding depths, and partial shade.

Seasonal Cycle: This aggressive weed not only re-seeds prolifically, but also can spread vegetatively through fallen lateral stems that root. Purple loosestrife flowers in July and August in most of Connecticut. The seeds mature in August and September, and germinate the following season as long as the soil is not too wet, and soil surface temperatures are optimum. Dead stalks remain standing through winter.

Distribution: Originally a native of Europe, loosestrife was introduced to the northeastern United States and Canada in the 1800's and has since spread westward to Minnesota and southward to Virginia. Although not native, it can occur "naturally" in any freshwater wetland area, particularly in an area that has been disturbed. It is also sold commercially for perennial gardens. Two cultivated species widely available are Lythrum salicaria and Lythrum virgatum. Cultivars of these species are supposedly self-infertile, but can become quite fertile and widespread when crossed with wild purple loosestrife and should not be used for home gardens. Other points of interest: Purple loosestrife has a long history of use in herbal medicine. It has been used to stop both internal and external bleeding, and sap extracted from the leaves can be taken to control dysentery. Although it is now seldom used, L. salicaria was highly recommended in early herbals.

Control: In spite of its spectacular beauty, often covering acres of wetland areas, purple loosestrife is a particularly troublesome invasive species with low wildlife value. It can grow as dense monocultures, crowding out sedges, grasses, rushes, and other aquatic plants more valuable to wildlife. In Minnesota, where purple loosestrife has spread at an alarming rate, it is illegal to plant or sell either L. salicaria or L. virgatum. Purple loosestrife is listed as a noxious weed in 12 other states, where its importation and distribution is prohibited. Control techniques include early

detection of purple loosestrife, hand-pulling of small infestations of one- to two-year-old plants before they set seed, and spot treatment of older plants with non-selective herbicides such as Rodeo¨ for aquatic communities or Roundup¨ on terrestrial sites. A DEP permit is required for the use of Rodeo¨ in aquatic communities, however. If herbicides are used, they are most effective when sprayed in the late summer or early fall, but repeated use is costly, and the long-term effects on natural systems are not fully understood. Due to a strongly-developed tap root, removal by digging is not recommended since the disturbance may encourage proliferation. Biological control, in this case using insects from the plant's natural environment, is being studied by the U.S. Department of Agriculture. The species include a root-mining weevil, Hylobius transversovittatus, and two leaf-eating beetles, Galerucella calmariensis and Galerucella pusilla. Release of these insects occurred in 1992 in New York, Pennsylvania, Maryland, Virginia, Minnesota, Oregon and Washington state. Their impact should be noticeable by 1997. Additional information sources: A Field Guide to Coastal Wetland Plants of the Northeastern United States. Ralph W. Tiner, Jr. The University of Massachusetts Press, Amherst 1987. Wetlands -- Audubon Society Nature Guide. William A. Niering. Chanticleer Press, New York 1985. Diagnostic information: Flowers: July to September; small, purplish-pink with five to seven petals, clustered in the axils of reduced leaves, forming long dense terminal spikes (4-16 inches long). Leaves: sessile (without stalks), up to four inches long, lance-shaped, with heart-shaped bases, somewhat clasping stem, oppositely arranged, sometimes in whorls of three, turn red at the end of the growing season. Stems: four-angled, almost woody, glabrous to pubescent. Fruits: small capsule. This fact sheet has been prepared by The Nature Conservancy Connecticut Chapter in cooperation with The Natural Diversity Data Base of the Connecticut Department of Environmental Protection.

The Nature Conservancy, Connecticut Chapter
55 High Street Middletown, CT 06457
Department of Environmental Protection Geological and Natural History Survey Natural Diversity Data Base
79 Elm Street Hartford, CT 06106

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